

ABSTRACT

The invention relates to methods and compounds for treating subjects who have proliferative disorders. The invention also relates to screening methods for identifying such compounds. The methods and compositions target the activity of the human kinesin-like protein KIF18A (and the KIF18A ortholog, KLP67A) and homologs thereof, and a gene encoding *KIF18A* or a homologous or orthologous gene. KIF18A and KLP67A are kinesin superfamily (KIF) proteins. Members of the KIF protein family are known to participate in chromosomal and spindle movements during mitosis and meiosis thereby making them attractive targets for treating cancers and the like.